

Work Order ID 86978

86978

Page 1

July-10-12 9:12:23 AM

Item ID: D3439-101

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Mirror Assembly 8"

Start Date: 7/10/12 Start Qty: 20.00

20

Cust Item ID:

Required Date: 8/10/12 Req'd Qty: 20.00

20

Customer:

Reference:

Run Start *NR1*

Approvals: Process Plan: MLJ Date: 12/07/11

Tooling: _____ Date: _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3439	Rev B

100	PURCHASING:	0.00							
100									
Purchasing	Memo	0.00							
Purchasing	Issue P/O: <u>17419</u>								
	For Grote Mirror P/N: 12183								
	Possible Supplier: UAP/NAPA								
	Material release note is required								

CR 12/07/11 20

110	Receive & Inspect for Damage & Mat'l Certs	0.00							
110									
Packaging	Memo	0.00							
Packaging	Ensure Material Release Note is attached								

20x SP 12-7-20

115	QC6- Inspect dimensions to drawing	0.00							
115									
QC	Memo	0.00							
Quality Control									

DAS 16 12/10/12

cont (120)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 86978

86978

Page 2

July-10-12 9:12:23 AM

Item ID: D3439-101 Accept *N900040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: Mirror Assembly 8"
Start Date: 7/10/12 Start Qty: 20.00 *20* Cust Item ID:
Required Date: 8/10/12 Req'd Qty: 20.00 *20* Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120		0.00							
120	Small Fab	0.00				19x			3/30/09
Small Fab	Memo								
Small Fab	1- Discard Hardware. 2- Drill and Tap mirror as per Dwg using DT9670 , then install stud as per dwg. 3- Plug drain holes with Sikaflex. Ensure that mirror adheres to housing. Pick: Qty Part Number Description Batch A/RN/A Sikaflex-241/-29 124925 Sikaflex expiry date 3/10/01								
130	QC5- Inspect part completeness to step on W/O	0.00							
130						19			
QC	Memo	0.00							
Quality Control									

27
13 4-10

Pto

W/O: 86978		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3439-101 PAR #: _____ Fault Category: Sm Tab NCR: Yes No DQA: Anti Date: 13/04/20
 Resolution: _____ Disposition: Scrap QA: N/C Closed: CK Date: 13/4/10

NCR: 13-2507		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
13/04/10	120	1 mirror is scrap Tap drill broke up Inside R.C Process	DAS 16 9-5 Q2Zuiz 13/4/10	Scrap. destroy no replace \$ 14.93	13/04/10 JF	Q2Zuiz 13/4/10	DAS 16 9-5 Q2Zuiz 13/4/10	DAS 16 9-5 13/4/10

NOTE: Date & initial all entries

July-10-12 9:12:23 AM

Item ID: D3439-101

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Mirror Assembly 8"

Start Date: 7/10/12 **Start Qty:** 20.00

20

Cust Item ID:

Required Date: 8/10/12 **Req'd Qty:** 20.00

20

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center ID

Operation Description

Set Up/ Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------	--------	-----------	------------	------------	---------------	-------------

140

Identify as per dwg & Stock Location:_____

0.00

140

Packaging

Memo

0.00

Packaging

150

QC21- Final Inspection - Work Order Release

0.00

150

QC

Memo

0.00

Quality Control

RLB-0411

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

July-10-12 9:12:22 AM

Page 1

Work Order ID: 86978
Parent Item: D3439-101
Parent Item Name: Mirror Assembly 8"

Start Date: 7/10/12
Start Qty: 20.00

Required Date: 8/10/12
Required Qty: 20.00

Comments: IPP A05.07.20New issueKJ/JLM ver:ec
IPP Rev:B 10.09.08 per dwg RevB DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
12183 GROTE MIRROR		Purchased	No			120	Each	0.0000	1	20		8/12-7-20	
D3015-3 Locknut		Manufactured	No			120	Each	394.0000	1	20		8/3/04/09	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST023		394						B95758 (19x)	
				78314		94							
				83565		300							
D3439-3 Stud		Manufactured	No			120	Each	81.0000	1	20		8/3/04/09	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				GA		81							
				77048		31							
				83077		50							
NAS1149C0563R Washer		Purchased	No			120	Each	361.0000	1	20		8/3/04/09	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST296		200							
				120422		200							
				ST297		161							
				116391		8							
				117460		153							

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

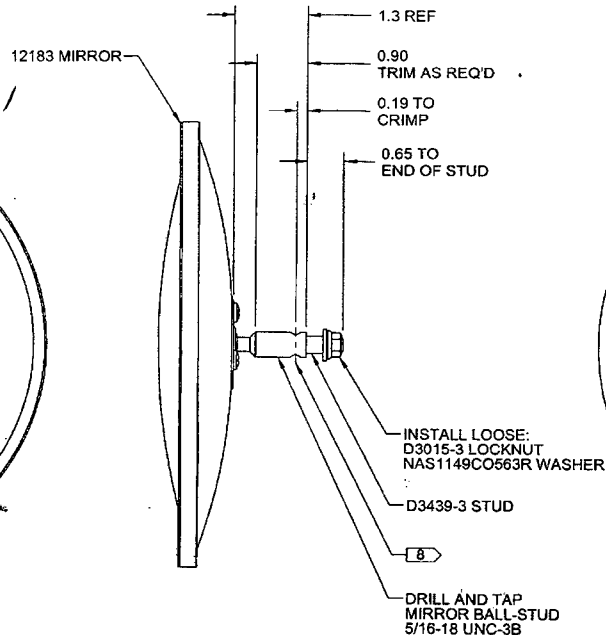
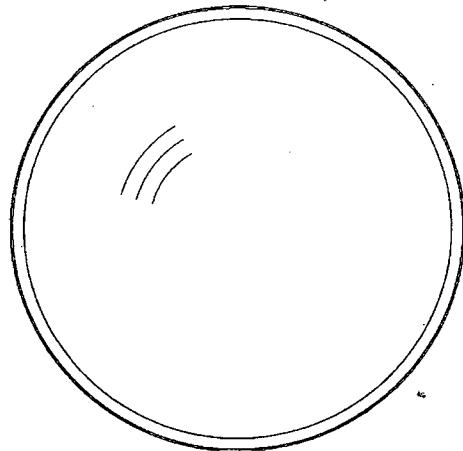
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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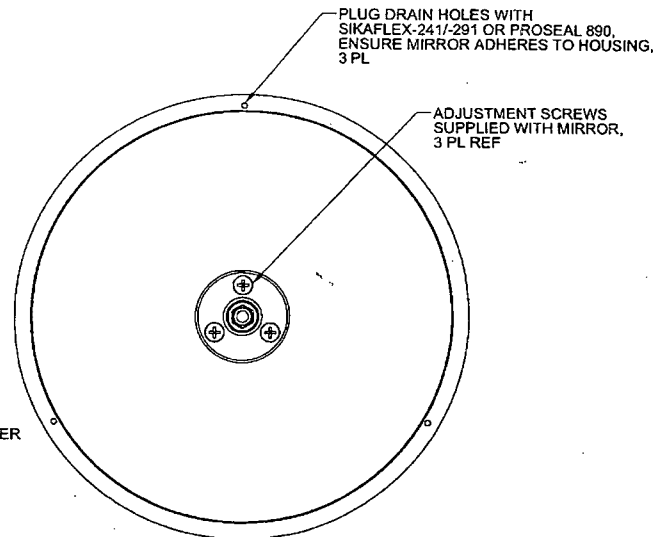
NOTE: Date & initial all entries

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 86978 MLCJ
12/07/11



ITEM	QTY	P/N	DESCRIPTION
1	X	D3439-101	MIRROR ASSEMBLY, 8"
2	1	12183	MIRROR 8" (GROTE)
3	1	D3015-3	LOCKNUT
4	1	D3439-3	STUD
5	1	NAS1149CO563R	WASHER (OR AN960JD516)



D3439-101 MIRROR ASSEMBLY

NOTES:

- 1) MATERIAL: MIRROR= 8" ROUND CONVEX MIRROR W/ STAINLESS STEEL CASE
CENTER-MOUNT BALL-STUD W/ 1/4-20 X 1" DEEP FEMALE THREAD
GROTE INDUSTRIES, 2600 LANIER DRIVE, MADISON, INDIANA 47250
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3439-101" USING REMOVEABLE TAG
- 7) WEIGHT: 1.18 lbs
- 8) TO INSTALL D3439-3 STUD:
 - APPLY LOCKTITE 262 TO THREADS BEING INSTALLED INTO MIRROR BALL-STUD
 - THREAD D3439-3 STUD INTO MIRROR BALL-STUD
 - CRIMP MIRROR BALL-STUD ON OPPOSING SIDES, 0.19 FROM END AS ILLUSTRATED USING TOOL DT8317
 - CRIMP TO DEPTH OF 0.015-0.030 USING R0.125

RELEASED
2010-09-07

6	REDRAW, ADD -3 (WAS PURCHASED/TRIMMED BOLT), RMV LPS	CP	10.07.20
A	NEW ISSUE	CP	05.05.27
REV.	DESCRIPTION	BY	DATE
DESIGN	gp		
DRAWN	gp		
CHECKED	gp		
MFG. APPR.	gp		
APPROVED	gp		
DE APPR.	gp		
DATE	10.07.20		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D3439** REV. B
SHEET 1 OF 2
TITLE **MIRROR ASSEMBLY** SCALE NTS

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

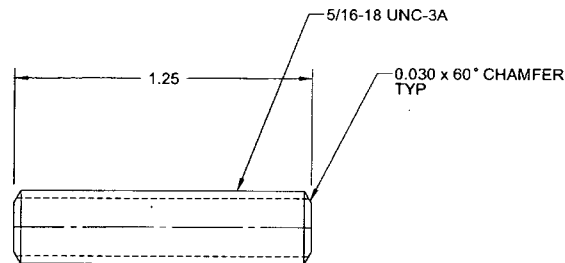
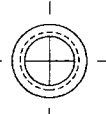
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NOTE: Date & initial all entries

86978



D3439-3 STUD

RELEASED
2010-09-07

NOTES:

- 1) MATERIAL: AISI 303 STAINLESS STEEL ROUND BAR PER ASTM A582
REF DART SPEC M303R
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.03 lbs

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3439	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		MIRROR ASSEMBLY	NTS
DATE	10.07.20	<small>COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRELIMINARY AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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HAWKESBURY AUTO PARTS INC 55806574
514 MAIN STREET WEST
HAWKESBURY, ONT. K6A 2J2
TEL: 632-8575 FAX: 632-1532

061597896RT0001
DANGEROUS GOODS PERMIT
EXPIRY DATE:
PERMIS RELATIF AUX MARCHANDISES DANGEREUSES.
DATE D'EXPIRATION:
EMERGENCY TELEPHONE NUMBER 24 HOURS
CANUTEC 613-996-6666
NUMÉRO DE TÉLÉPHONE D'URGENCE 24 HEURES
CANUTEC 613-996-6666

ACCT # N° COMPTE	SOLD TO / VENDU À	DATE	TIME HEURE	STORE # N° MAGASIN	EMP # N° EMPL.	INVOICE NO. N° FACTURE
01601	DART AEROSPACE LTD 1270 ABERDEEN STREET HAWKESBURY, ONTARIO K6A 1K7	7/20/12	07:45	060004074	20	358461
SR #		PURCHASE ORDER # N° BON DE COMMANDE				
40		17419				
AD		TAX EXEMPTION: EXEMPTION DE TAXE: 6122-5207				
15		TERMS: NET 30 DAYS CHARGE SALE				
		DELIVERY: LIVRAISON:				
PART NUMBER / N° PIÈCE	LN	DESCRIPTION	QUANTITY QUANTITÉ	PRICE / PRIX	NET	TOTAL
P12123 DAS 16 9-89 17/19/12 en arrière	GRO	GROTE MIRROR	20.00		21.490	429.80 T1

REFUNDED BY _____

VERIFIED BY _____

Subtotal

Tax 13% ON MERCHANDISE

Tax 0%

429.80

55.87

0.00

Pro 110



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO17419

Purchase Order Date 7/11/12

PO Print Date 7/12/12

Page Number 1 of 1

Order From :

VC-UAP001

UAP HAWKESBURY INC. #074
514 MAIN STREET WEST
HAWKESBURY, ON K6A 2J2
CA

Contact Name

Vendor Phone

613 632 8575

Vendor Fax

613 632 1539

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA



Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price
1	12183	GROTE MIRROR	7/13/12 Yes	20.00 Each	Yours ppd	\$21.4900

Special Inst: AS PER DWG D3439 REV. B
B86978
GROTE P/N: 12183

2		GOS GJP302D 30" DRUM FAN	7/13/12 Yes	1.00 Each	Yours ppd	\$249.9900
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Deliver To: CARL

PO Total:

Change Nbr: 2

Change Date: 7/12/12

No substitution or deviation without
consent.
Certificate of Conformity or M
Certification required YES